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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,621	12/12/2001	Eric J. Horvitz	MS164170.2	5221

7590 09/20/2005

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EXAMINER	
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ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/021,621	HORVITZ ET AL.	
	Examiner	Art Unit	
	Peling A. Shaw	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-85* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/29/05,05/12/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The terminal disclaimer filed on 07/11/2005 disclaiming the terminal portion of any patent granted on this application that would extend beyond the expiration date of 10/220,550 has been reviewed and is accepted. The terminal disclaimer has been recorded.

2. Amendment received on 07/11/2005 has been entered. Claims 1, 13, 23, 25, 40-41, 55 and 78 are amended. Claims 1-85 are still pending.

Priority

3. This application claims benefit of 60/255,016 on 12/12/2000. The filing date is 12/12/2001.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23-26 and 34-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Robert M. Losee, Jr. (Minimizing Information Overload: The Ranking of Electronic Messages), hereinafter referred as Losee.

a. Regarding claim 23, Losee disclosed a method associated with message delivery, comprising: generating a priority associated with a message (abstract); determining an expected loss of non-review of the message at a current time based at least on the message priority and an expected rate of lost opportunity for the user resulting from non-review of the message as a function of time; determining an expected cost of

outputting the message at the current time; and alerting a user of the message in response to determining that the expected loss is greater than the expected cost (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

b. Regarding claim 24, Losee disclosed the method of claim 23, the expected loss of non-review comprises determining a likelihood that the user will review message text at a future time (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

c. Regarding claim 25, Losee disclosed the method of claim 23, the expected loss of non-review comprises determining a current expected rate of lost opportunity for the user resulting from non-review of the message as a function of time is non-linear (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

d. Regarding claim 26, Losee disclosed the method of claim 23, wherein the priority is generated by a classifier configured as at least one of a Bayesian classifier and a support-vector machine classifier (page 182, left column, 2nd and 3rd paragraphs).

e. Regarding claim 34, Losee disclosed the method of claim 23, further comprising determining an expected criticality for the prioritized messages (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

f. Regarding claim 35, Losee disclosed the method of claim 34, wherein the expected criticality (EC) is expressed as:

$$EC = \sum_{i} C^{d}(H_i) p(H_i \mid E^{d})$$

wherein C is a cost function that relates to a cost rate at which cost is accrued, d is a delay, E is an event, and H is a criticality class (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

g. Regarding claim 36, Losee disclosed the method of claim 34, wherein the expected criticality is expressed as a function of time (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

h. Regarding claim 37, Losee disclosed the method of claim 36, an expected loss is expressed as at least one of:

$$EL = \sum_{i}^{n} p(critical_i)C(critical_i)\,t; \text{ and}$$

$$EL = \int_0^t p(critical_i)C(critical_i,t)dt$$

wherein EL is an expected loss, p(critical$_i$) is a probability that a message has criticality ***i***, C(critical$_i$) is a cost function for the message having the criticality ***i***, ***n*** is a total number of criticality classes minus one, and ***t*** is the time delay before reviewing the message (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

i. Regarding claim 38, Losee disclosed the method of claim 37, the expected loss is expressed as at least one of:

$$EL' = \sum_j p(t_j|\mathrm{E}) \sum_{i}^{n} p(critical_i)C(critical_i)\,t_j \text{; and}$$

$$EL' = \sum_j p(t_j|\mathrm{E}) \int_0^{t_j} p(critical_i)C(critical_i,t)dt$$

wherein EL is an uncertainty in time of delay, E represents one or more observations about a user state, and *i* and *j* are indexes, *i* and *j* being integers (page 181, left column, last paragraph-page 182, right column, 1st paragraph).

j. Regarding claim 39, Losee disclosed the method of claim 38, E is at least one of a calendar, a room acoustic, a desktop activity, a time since last touched an active device (page 181, right column, section 4, first paragraph: schedule, feature).

Losee disclosed all limitations of claims 23-26 and 34-39. Claims 23-26 and 34-39 are rejected under 35 U.S.C. 102(b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt, Anderlind, et al., (US 6,781,972 B1), hereinafter referred as Anderlind, Wright, et al., (US 6,078,568 A), hereinafter referred as Wright and Cooper, et al., (US 6,757,362 A), hereinafter referred as Cooper.

a. Smith shows (claim 1) a user interface to manage electronic messages, comprising: a display providing one or more display objects associated with delivery of one or more messages, the messages being automatically classified according to a respective

priority value; and one or more inputs associated with the display objects to facilitate adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles); (claim 40) a user interface to manage electronic messages, comprising: means for providing graphical displays associated with one or more messages that have been automatically classified according to a priority of the respective messages; and means for configuring the graphical displays according to one or more user preferences associated with the priority and delivery of the one or more messages (Figs. 4, 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith also shows (column 11, line 33-37) any recipients of system messages that are not profiled will receive e-mail by default, with a reminder to set up their profile to take full advantage of the communications, scheduling and priority extensions to enhance their business productivity. Smith does not show (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message; (claim 3) the one or more profiles relating to an active profile and a default profile configurable by the user; (claim 6) the delivery options including chunking options, the chunking options comprise at least one of holding and delivering messages until a predetermined time specified by the user, holding and delivering messages until a predetermined number

of messages have accumulated, and holding and delivering messages based upon a predetermined inactivity of a computer; (claim 7) the one or more profiles have an associated priority setting such that messages are transmitted based upon a threshold configurable by the user; (claim 8) the priority setting associated with a display object having a slider to adjust the threshold, the threshold having a range from high priority messages sent to all messages sent to a mobile device; (claim 40) the one or more user preferences includes at-least assembling a priority value to a voice message based at least in part on acoustical properties of the voice message.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60); (claim 40) the one or more user preferences includes at-least assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Anderlind shows (claim 3) active and default profile is configurable by the user (column 7, line 60-63; column 8, line 21-23) in an analogous art for the purpose of allowing a mobile station user to select and configure its own profiles for processing received data message.

d. Wright shows (claim 6) the delivery options including chunking options, the chunking options comprise at least one of holding and delivering messages until a predetermined time specified by the user, holding and delivering messages until a

predetermined number of messages have accumulated (column 27, line 26-34: wait for a predetermined number of data packets to be queued or for an implementation specific time), and holding and delivering messages based upon a predetermined inactivity of a computer (column 27, line 26-34: the subscriber MAC layer is only permitted to add additional data packets to the transmission queue while in the idle state) in an analogous art for the purpose of transmitting data packets over radio network using carrier sense multiple access (CSMA).

e. Cooper shows (claim 7) the one or more profiles have an associated priority setting such that messages are transmitted based upon a threshold configurable by the user and (claim 8) the priority setting associated with a display object having a slider to adjust the threshold, the threshold having a range from high priority messages sent to all messages sent to a mobile device (column 43, line 25-29: To change the tempo of the VA, the slider dragged to the desired position. For example, a user would set the tempo to slow when first learning how to use the VA, and after becoming more familiar with the VA, the tempo could be set to fast) in an analogous art for the purpose of assigning a tempo threshold for virtual assistant to recognize a command via a user voice input.

f. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management, Anderlind functions of profile management, Wright's functions of delivering e-mails to devices and Cooper's slide adjustment function.

g. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching, profile management functions per Anderlind and Cooper's teaching and e-mail delivery control per Wright's teaching into a universal message management system per Smith's teaching.

h. Regarding claim 2, Smith shows the one or more display objects including one or more profiles that relate to a time and manner of delivery of the one or more messages (column 6, line 21-23: Upon selection of profile manager 162, the user chooses 172 to create a profile 174 for each priority; column 6, line 31-33: Upon selection of schedule manager 164, the user chooses 178 to add a new schedule 180 by assigning profiles previously created to date formulas; column 6: line 13-15: Upon selection of device manager 160, the user chooses 166 to add and configure new devices 168 for receipt of messaging information sent by the system 10).

i. Regarding claim 4, Smith shows the one or more profiles are associated with one or more delivery options for sending the messages to a device (column 6: line 13-15: Upon selection of device manager 160, the user chooses 166 to add and configure new devices 168 for receipt of messaging information sent by the system 10).

j. Regarding claim 5, Smith shows the one or more delivery options including at least one of send messages to a mobile device (column 6: line 15-17: These include multiple e-mail, voicemail, fax, pager, telephone and wireless communication devices), send messages from a folder associated with the mobile device (column 6, line 48-52: The media folders process the appropriate communications through the

media translator 192, creating new message formats and addresses based on the recipient information received and messaging devices to which the messages are destined), enable prioritized delivery (column 6, line 5-7: The user defines message delivery methods according to the message priority, device security and time schedule).

k. Regarding claim 9, Smith shows the one or more profiles including at least one of a calendar and time setting associated with the one or more display objects (column 9, line 18-20: Finally, the recipient selects the "schedules" tab so that the recipient can assign the various profiles to dates and times).

l. Regarding claim 10, Smith shows the one or more profiles are associated with at least one of work, home, out of office and do not disturb (column 6, line 24-26: The profile designates locations such as work, home, vacation, travel office, travel accommodations and other user preferences).

Together Smith, Badt, Anderlind, Wright and Cooper disclosed all limitations of claims 1-10 and 40. Claims 1-10 and 40 are rejected under 35 U.S.C. 103(a).

6. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt and Matthew Marx (CLUES: Dynamic Personalized Message Filtering), hereinafter referred as Marx.

a. Smith shows (claim 1) a user interface to manage electronic messages, comprising: a display providing one or more display objects associated with delivery of one or more messages, the messages being automatically classified according to a respective

priority value; and one or more inputs associated with the display objects to facilitate adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith also shows (column 9, line 62-67) a response view summarizing response messages. Smith does not show (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message; (claim 11) priority learning.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Marx shows (claim 11) gathering the status information associated with an amount of learning that has been achieved by a priorities system (page 114, left column, last paragraph-right column first paragraph) in an analogous art for the purpose of dynamic personalized message filtering.

d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management and Marx's personalized message filtering feature.

e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching and a user message examination feedback feature in the priority assignment, including an ability to view the feedback learning status per Marx's teaching into a universal message management system per Smith's teaching.

Together Smith, Badt and Marx disclosed all limitations of claims 1 and 11. Claims 1 and 11 are rejected under 35 U.S.C. 103(a).

7. Claims 1, 12-13 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt, Eggleston et al. (US 6101531 A), hereinafter referred as Eggleston and Wright, et al., (US 6,078,568 A), hereinafter referred as Wright.

a. Smith shows (claim 1) a user interface to manage electronic messages, comprising: a display providing one or more display objects associated with delivery of one or more messages, the messages being automatically classified according to a respective priority value; and one or more inputs associated with the display objects to facilitate adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith does not show (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message; (claim 12) the one or more display objects selectable to send a summary of

information to a device associated with the one or more messages; (claim 13) the one or more display objects including a reset of the amount of messages sent to the device; (claim 20) the one or more device options further comprising a selectable compression setting to control the amount of information displayed; (claim 21) the one or more device options further comprising limiting a number of messages sent, limiting the number of characters in the messages, and automatically resetting the number of messages sent.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Eggleston shows (claim 12) the one or more display objects selectable to send a summary of information to a device associated with the one or more messages (column 3, line 21-39); (claim 20) the one or more device options further comprising a selectable compression setting to control the amount of information displayed (column 11, line 67-column 12, line 7) in an analogous art for the purpose of sending messages to a wireless client.

d. Wright shows (claim 13) the one or more display objects including a reset of the amount of messages sent to the device (column 27, line 26-34: Prior to exiting from the idle state (1), the subscriber MAC layer shall set a state variable of the No.sub.-- Tx.sub.-- Attempts to zero); (claim 21) the one or more device options further comprising limiting a number of messages sent (column 13, line 13-18), limiting the

number of characters in the messages (column 10, line 2-6), and automatically resetting the number of messages sent in an analogous art for the purpose of transmitting data packets over radio network using carrier sense multiple access (CSMA).

e. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management, Eggleston's functions of sending message summary and compressing message, and Wright's functions of delivering e-mails to devices.

f. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching, selection of message to be viewed on a device and compression of message for delivery over a low bandwidth device per Eggleston's teaching, e-mail delivery control per Wright's teaching into a universal message management system per Smith's teaching.

g. Regarding claim 19, Smith shows further comprising one or more device options relating to how messages are displayed on a device (column 6, line 42-44).

h. Regarding claim 22, Smith shows the one or more device options further comprising configuring display information relating to a sender of the messages (column 2, line 28-35).

Together Smith, Badt, Eggleston and Wright disclosed all limitations of claims 1, 12-13 and 19-22. Claims 1, 12-13 and 19-22 are rejected under 35 U.S.C. 103(a).

8. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt and Jonathan Isaac Helfman et al. (Ishmail: Immediate Identification of Important Information), hereinafter referred as Helfman.

a. Smith shows (claim 1) a user interface to manage electronic messages, comprising: a display providing one or more display objects associated with delivery of one or more messages, the messages being automatically classified according to a respective priority value; and one or more inputs associated with the display objects to facilitate adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith also shows (column 9, line 62-67) a response view summarizing response messages. Smith does not show (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message; (claim 14) the one or more display objects comprising one or more rules configurable by the user to effect delivery of the messages to a device, the one or more rules including selection options of at least one of sending messages based on importance, sending messages based on the user's name and a TO field, sending messages based on the user's name and a CC field, and sending messages based on a source of the message.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Helfman shows (claim 14) the one or more display objects comprising one or more rules configurable by the user to effect delivery of the messages to a device (page 5, right column, paragraph 5; page 2, left column, 3rd paragraph), the one or more rules including selection options of at least one of sending messages based on importance, sending messages based on the user's name and a TO field (page 6, left column, 3rd paragraph), sending messages based on the user's name and a CC field (page 6, left column, 3rd paragraph), and sending messages based on a source of the message (page 6, left column, 3rd paragraph) in an analogous art for the purpose of identifying important messages.

d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management and Helfman's functions of setting rule in delivering specific messages to a specific device.

e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching and the filtering of message delivery to a specific device (location) based

upon the role, identification and origination of message per Helfman's teaching into a universal message management system per Smith's teaching.

Together Smith, Badt and Helfman disclosed all limitations of claims 1 and 14. Claims 1 and 14 are rejected under 35 U.S.C. 103(a).

9. Claims 1 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, et al., (US 6,463,462 B1), hereinafter referred as Smith in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt and Jonathan Isaac Abu-Hakima (US 6499021 B1), hereinafter referred as Abu-Hakima.

a. As per paragraph 4, item a, Smith shows (claim 1) a user interface to manage electronic messages, comprising: a display providing one or more display objects associated with delivery of one or more messages, the messages being automatically classified according to a respective priority value; and one or more inputs associated with the display objects to facilitate adaptation of the user interface to one or more preferences of a user (Figs. 4 and 20-22; column 6: line 1-39; column 10, line 57-60: The message form displays the quantity and type of devices to receive messages, as obtained from the various collective recipient profiles). Smith does not show (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message; (claim 15) further comprising providing feedback to the user via the one or more display objects regarding learning associated with a priorities system; (claim 16) the feedback includes information relating to learning when messages are deleted by the user; (claim 17) the feedback includes information

relating to where messages are learned from and (claim 18)further comprising at least one of back-up, restore, and reset options regarding the learning.

b. Badt shows (claim 1) the one or more inputs includes at least one or more user preferences for assembling a priority value to a voice message based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Abu-Hakima shows (claim 15) further comprising providing feedback to the user via the one or more display objects regarding learning associated with a priorities system (column 11, line 19-25); (claim 16) the feedback includes information relating to learning when messages are deleted by the user (column 10, line 24-40); (claim 17) the feedback includes information relating to where messages are learned from (column 10, line 41-46) and (claim 18) further comprising at least one of back-up, restore, and reset options regarding the learning (column 10, line41-64) in an analogous art for the purpose of intelligently managing electronic messages.

d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Smith's functions of delivering messages and processing message responses with Badt's functions of audio notification management and Abu-Hakima's functions of automatic user knowledge and behavior learning system.

e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching, the automatic user knowledge and behavior learning functions per Abu-

Hakima's teaching into a universal message management system per Smith's teaching consider.

Together Smith, Badt and Abu-Hakima disclosed all limitations of claims 1 and 15-18.

Claims 1 and 15-18 are rejected under 35 U.S.C. 103(a).

10. Claims 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert M. Losee, Jr. (Minimizing Information Overload: The Ranking of Electronic Messages), hereinafter referred as Losee, as applied to claim 23 above, and further in view of Eggleston et al. (US 6101531 A), hereinafter referred as Eggleston.

a. As quoted from paragraph 5, item a, Losee shows (claim 23) a method associated with message delivery, comprising: generating a priority associated with a message (abstract); determining an expected loss of non-review of the message at a current time based at least on the message priority and an expected rate of lost opportunity for the user resulting from non-review of the message as a function of time; determining an expected cost of outputting the message at the current time; and alerting a user of the message in response to determining that the expected loss is greater than the expected cost (page 181, left column, last paragraph-page 182, right column, 1st paragraph). Losee does not show (claim 27) further comprising providing a current profile selected from one of a plurality of profiles, at least a portion of the plurality of profiles editable by the user to reflect a different context; (claim 28) the plurality of profiles is schedulable on a per-day and by-time basis; (claim 29) the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality in conjunction with one or more other messages; (claim

30) the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality when a specified period has expired; (claim 31) further comprising, prior to alerting the user, formatting the message; (claim 32) the formatting comprises compressing the message; (claim 33) the formatting comprises fragmenting the message.

b. Eggleston shows (claim 27) further comprising providing a current profile selected from one of a plurality of profiles, at least a portion of the plurality of profiles editable by the user to reflect a different context (column 5, line 49-54; column 8, line 23-26); (claim 28) the plurality of profiles is schedulable on a per-day and by-time basis (column 9, line 48-51); (claim 29) the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality in conjunction with one or more other messages (column 6, line 66-column 7, line 3); (claim 30) the plurality of profiles provides a chunk setting such that the message is delivered to a communications modality when a specified period has expired (column 7, line 28-37); (claim 31) further comprising, prior to alerting the user, formatting the message (column 11, line 67-column 12, line 7); (claim 32) the formatting comprises compressing the message (column 11, line 67-column 12, line 7); (claim 33) the formatting comprises fragmenting the message (column 7, line 8-13: packetized) in an analogous art for the purpose of sending messages to a wireless client.

c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to add Eggleston's communication server functions, message

formatting, compressing and packetization functions into Loose's Message Presentation System after the messages is ranked and alert is generated per claim 23.

d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to combine user-definable message filtering profile functions, message formatting and compression functions in packet data network together with email prioritization and management functions.

Together Losee and Eggleston disclosed all limitations of claims 27-33. Claims 27-33 are rejected under 35 U.S.C. 103(a).

11. Claims 41-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juha Takkinen (CAFE: A Conceptual Model for Managing Information in Electronic Mail), hereinafter referred as Takkinen in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt and Jonathan Isaac Abu-Hakima (US 6499021 B1), hereinafter referred as Abu-Hakima.

a. Takkinen shows (claim 41) a method for delivering messages to a device, comprising: scheduling a period when one or more user profiles are activated (page 47, section 3: CAFE, busy, cool and curious modes); configuring at least one set of parameters for the one or more profiles (page 47, right column, line 41-45; page 52, section 6, 1st paragraph); assigning priority values to one or more messages (page 48, left column, 2nd paragraph: busy mode); and delivering the one or more messages based at least in part on the priority values, the profile that is activated, and the at least one set of parameters (page 47, section 3: CAFE, busy, cool and curious modes). Takkinen does not show (claim 41) wherein a voice message is assigned a priority value based at least in part on acoustical properties of the voice message; (claim 52) further

comprising automatically calling the user if the priority value is above a predetermined threshold; (claim 53) further comprising converting audio messages into text and (claim 54) further comprising determining a priority for the messages based upon at least one of the pitch, rate, content, and inflection of the messages.

b. Badt shows (claim 41) wherein a voice message is assigned a priority value based at least in part on acoustical properties of the voice message (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Abu-Hakima shows (claim 52) further comprising automatically calling the user if the priority value is above a predetermined threshold (column 7, line 12-17); (claim 53) further comprising converting audio messages into text (column 9, line 40-65) and (claim 54) further comprising determining a priority for the messages based upon at least one of the pitch, rate, content, and inflection of the messages (column 9, line 40-65) in an analogous art for the purpose of intelligently managing electronic messages.

d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Takkinen's functions of managing information in electronic mail with Badt's functions of audio notification management and Abu-Hakima's functions of message forwarding and e-message media conversion agent.

e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification and voice mail functions per Badt and Abu-Hakima's teaching into electronic mail management system per Takkinen's teaching.

f. Regarding claim 42, Takkinen shows further comprising assigning at least one of a color and a sound to indicate the priority of the messages (page 45, section 2.2; page 46, section 2.3).

g. Regarding claim 43, Takkinen shows further comprising deferring messages until a more convenient time established by the user (page 52, section 6, 1st paragraph: calendar).

h. Regarding claim 44, Takkinen shows further comprising providing status information relating to why a message is of a determined priority (page 48, left column, 2nd and 4th paragraphs: busy and curious modes).

i. Regarding claim 45, Takkinen shows further comprising observing a previous history of activity and providing feedback as to a message delivery volume based upon the history (page 48, left column, 2nd and 4th paragraphs: curious modes; page 51, section 5, 3rd paragraph).

j. Regarding claim 46, Takkinen shows further comprising employing an information agent to consider restrictions from other parties before delivering the one or more messages (page 47, left column, line 20-24).

k. Regarding claim 47, Takkinen shows further comprising activating one or more rules that operate to influence when messages are sent to a user (page 47, left column, 3rd and 6th paragraphs, page 50, section 41, 1st paragraph, page 51, section 5, 3rd paragraph).

l. Regarding claim 48, Takkinen shows the one or more rules include an if and then construct such that if an event occurs then a message is automatically assigned a

predetermined priority (page 47, left column, 6th paragraphs: groupware, group schedule).

m. Regarding claim 49, Takkinen shows the one or more rules include an if and then construct such that if an event occurs then a priority value of a learning process is disclosed (page 46, left column, 1st paragraph; page 49, left column, last paragraph-right column, 1st and 2nd paragraph; page 51, left column, section 5, 3rd paragraph).

n. Regarding claim 50, Takkinen shows the one or more rules include an if and then construct such that if a message is received from a selected communications channel, then a message is automatically assigned a predetermined priority (page 47, left column, 6th and last paragraphs: route, print, and phone message; page 51, left column, 2nd paragraph: voice).

o. Regarding claim 51, Takkinen shows further comprising automatically reviewing messages by an order determined by the priority value (page 47, left column, 2nd, 6th and last paragraphs).

Together Takkinen, Badt and Abu-Hakima disclosed all limitations of claims 41-54. Claims 41-54 are rejected under 35 U.S.C. 103(a).

12. Claims 55-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonathan Isaac Abu-Hakima (US 6499021 B1), hereinafter referred as Abu-Hakima in view of Badt et al. (US 6542868 B1), hereinafter referred as Badt, Wright, et al., (US 6,078,568 A), hereinafter referred as Wright and Eggleston et al. (US 6101531 A), hereinafter referred as Eggleston.

a. Abu-Hakima shows (claim 55) a user interface for an adaptive prioritization and routing system, comprising: one or more controls and displays to at least one of

acquire user preferences, inspect behavior, and guide learning and decision policies of the adaptive prioritization and routing system (column 8, line 36-48; column 9, line 15-39); and a user interface associated with the one or more controls and displays that facilitates inspection, control and learning associated with alerting and routing prioritized messages (column 9, line 15-39; column 11, line 19-25); (claim 78) a user interface for an adaptive prioritization and routing system, comprising: one or more controls and displays to acquire message priority settings associated with the adaptive prioritization and routing system (column 8, line 36-48; column 9, line 15-39); and a user interface associated with the one or more controls and displays that provides at least one of an adjustable control of an amount of messages received via the message priority settings and a feedback directed to the user relating to the settings (column 8, line 36-48; column 9, line 15-39; column 11, line 19-25). Abu-Hakima does not show (claim 55) wherein a voice message is assigned a priority based at least in part on acoustical properties of the voice message; (claim 65) the chunking options include grouping M messages, M being an integer, the M messages are held as a group before delivery of the messages to the user; (claim 72) further comprising a threshold adjustment that is employed as a bound on the total dollars allotted for forwarding messages to a user; (claim 73) the user specifies that a system sends the most urgent messages, but at a certain cost per message by a routing company, adjust the threshold so that it would expect to stay within a certain cost per day; (claim 78) including setting priority of the voice message based at least in part on acoustical properties of the voice messages.

b. Badt shows (claim 55) wherein a voice message is assigned a priority based at least in part on acoustical properties of the voice message (column 4, line 40-60); (claim 78) including setting priority of the voice message based at least in part on acoustical properties of the voice messages (column 4, line 40-60) in an analogous art for the purpose of audio notification management system.

c. Wright shows (claim 65) the chunking options include grouping M messages, M being an integer, the M messages are held as a group before delivery of the messages to the user (column 27, line 26-34: wait for a predetermined number of data packets to be queued or for an implementation specific time) in an analogous art for transmitting data packets over radio network using carrier sense multiple access (CSMA).

d. Eggleston shows (claim 72) further comprising a threshold adjustment that is employed as a bound on the total dollars allotted for forwarding messages to a user (column 3, line 62-67); (claim 73) the user specifies that a system sends the most urgent messages, but at a certain cost per message by a routing company, adjust the threshold so that it would expect to stay within a certain cost per day (column 3, line 62-67) in an analogous art for transmitting data packets over radio network.

e. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Abu-Hakima's functions of interpreting and managing electronic messages with Badt's functions of audio notification management, Wright's functions of packet transmitting and Eggleston's functions of message usage control.

f. The modification would have been obvious because one of ordinary skill in the art would have been motivated to integrate audio notification functions per Badt's teaching, scheduling the message delivery to a device, e.g. mobile or across LAN, according to device's access control capability, including holding a number of messages to be delivered once per Wright's teaching and usage and charge control function per Eggleston's teaching into electronic mail management system per Abu-Hakima's teaching.

g. Regarding claim 56, Abu-Hakima shows further comprising a plurality of parameters that are configured in conjunction with various configuration and adjustment options to facilitate personalization of the user interface (column 8, line 36-48; column 9, line 15-39).

h. Regarding claim 57, Abu-Hakima shows the personalization includes at least one of employing explicit and implicit user feedback relating to how messages are classified and subsequently provided to the user (column 8, line 49-56).

i. Regarding claim 58, Abu-Hakima shows the feedback is employed to guide learning and decision policies in the adaptive prioritization and routing system (column 11, line 19-25).

j. Regarding claim 59, Abu-Hakima shows the feedback includes dialog that is provided to users to further refine at least one of learning and decision policies in the adaptive prioritization and routing system (column 11, line 19-25).

k. Regarding claim 60, Abu-Hakima shows the explicit feedback includes such actions as configuring the user interface to consider a selection of messages as being more

important than another selection of messages and altering learning about how decisions are made regarding message urgency (column 4, line 14-26; column 11, line 19-25).

l. Regarding claim 61, Abu-Hakima shows the implicit feedback includes monitoring various context aspects of the user to determine message importance (column 10, line 41-47).

m. Regarding claim 62, Abu-Hakima shows the implicit feedback includes at least one of monitoring sounds, keyboard activities, presence detectors, pauses when reviewing messages, how quickly messages are opened and deleted, and whether messages are saved, copied and forwarded (column 6, line 38-41; column 10, line 50-63; column 10, line 24-30).

n. Regarding claim 63, Abu-Hakima shows the feedback includes directing messages to the user regarding learning decisions such as at least one of "You are about to delete messages that have not yet been employed in the learning process," and messages relating to how and why messages were classified a certain priority (column 10, line 24-40; column 11, line 19-25).

o. Regarding claim 64, Abu-Hakima shows further comprising one or more configuration and adjustment options that include at least one of profile options, routing options, alerting options, chunking options, schedule options, and context-sensitive control options (column 8, line 36-48).

p. Regarding claim 66, Abu-Hakima shows further comprising one or more rules that act in conjunction with a routing system, learning status and configuration options for

guiding and inspecting the state of learning of a message urgency system (column 5, line 35-57).

q. Regarding claim 67, Abu-Hakima shows the one or more rules including conditions that are applied in at least one of a disjunctive and a conjunctive manner (column 5, line 35-57).

r. Regarding claim 68, Abu-Hakima shows further comprising one or more device option configurations for controlling message output to a selected message reception and display device (column 8, line 36-48; page 9, line 39-65).

s. Regarding claim 69, shows further comprising prioritized messages having acoustical properties including at least one of prosadic features, temporal patterns of rate, pitch, inflections, and an overall energy associated with voice messages (column 9, line 40-65).

t. Regarding claim 70, Abu-Hakima shows further comprising a priority threshold adjustment that facilitates control of how many messages are sent to a users device (column 8, line 36-48).

u. Regarding claim 71, Abu-Hakima shows further comprising an overlay adjustment that limits the number of messages sent to the users device per a given timeframe (column 8, line 36-48).

v. Regarding claim 74, Abu-Hakima shows further comprising one or more deferral policies that are given as bounds such that a message of a particular urgency will not wait more than at least one of a predetermined and dynamically computed upper limit of time (page 7, line 25-64).

w. Regarding claim 75, Abu-Hakima shows the policies are at least in part based on a function of the message urgency (page 7, line 25-64).

x. Regarding claim 76, Abu-Hakima shows a user specifies at least one of that a message of high urgency should be transmitted with an alert to one or more active devices as soon as possible and to be available for review if the user happens to inspect messages that are waiting (page 7, line 25-64).

y. Regarding claim 77, Abu-Hakima shows further comprising a policy that if the user is more than a specified level of non-interruptability and the message has not been observed, then wait a predetermined time before alerting the user (page 7, line 25-58).

z. Regarding claim 79, Abu-Hakima shows the feedback includes at least one of a quantity of alerts and messages that would have been transmitted to the user per at least one of a time and within a specified bound in time (page 7, line 25-64; column 9, line 15-39; column 11, line 19-25).

aa. Regarding claim 80, Abu-Hakima shows further comprising monitoring user actions for each of several different routing parameters based upon a threshold on importance required to send a message beyond the parameters that were employed (column 10, line 13-23).

bb. Regarding claim 81, Abu-Hakima shows further comprising a user display including at least one of what would have happened had the settings been changed, and a display for a set of thresholds along a continual scale thresholds (column 8, line 36-48; column 9, line 15-39).

cc. Regarding claim 82, Abu-Hakima shows the feedback further comprising previously tracked numbers of messages that would have been received at different simulated values of the threshold (column 10, line 41-63).

dd. Regarding claim 83, Abu-Hakima shows further comprising providing feedback over at least one of a day, week, and month that is displayed at respective settings so as to be reviewed by users as guides to roughly predict future behavior of the adaptive prioritization and routing system for potential settings of the threshold (column 8, line 49-56).

ee. Regarding claim 84, Abu-Hakima shows further comprising employing recent history as a predictor of the future (column 10, line 41-63).

ff. Regarding claim 85, Abu-Hakima shows further comprising advanced simulations that are employed to perform "what-if" analyses for at least one of different settings, parameters and policies, such that new settings can be based on an expected number of alerts per given timeframe at different settings (column 8, line 49-56).

Together Abu-Hakima, Badt, Wright and Eggleston disclosed all limitations of claims 55-85. Claims 55-85 are rejected under 35 U.S.C. 103(a).

Response to Arguments

13. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

Remarks

14. The following pertaining arts are discovered and not used in this office action. Office reserves the right to use these arts in later actions.

a. Theimer et al. (US 5493692 A) Selective delivery of electronic messages in a multiple computer system based on context and environment of a user

Conclusion

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the statu9s of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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